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AMENDMENT 1
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Information technology — MPEG systems technologies —

Part 11: Energy-efficient media consumption (green metadata)

AMENDMENT 1: Carriage of green metadata in an HEVC SEI message

Technologies de l'information — Technologies des systèmes MPEG —

Partie 11: Consommation des supports éconergétiques (métadonnées vertes)

AMENDEMENT 1: Transport des métadonnées vertes dans un message HEVC SEI

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Amendment 1 to ISO/IEC 23001-11:2015 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information.*

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Page 1, Normative references

Add the following reference:

ISO/IEC 23008-2, *Information technology — High efficiency coding and media delivery in heterogeneous environments — Part 2: High efficiency video coding*

Page 5, Symbols and abbreviated terms

Replace the term AVC with the following:

AVC Advanced Video Coding - ISO/IEC 14496-10

Add the following term:

HEVC High Efficiency Video Coding - ISO/IEC 23008-2

Page 13, 6.2.2, second table

Replace the second table with the following:

	Size (bits)	Descriptor
num_quality_levels	4	unsigned integer
lower_bound	8	unsigned integer
if (lower_bound > 0)		
upper_bound	8	unsigned integer
rgb_component_for_infinite_psnr	8	unsigned integer
for (i = 1; i <= num_quality_levels; i++) {		
max_rgb_component[i]	8	unsigned integer
scaled_psnr_rgb[i]	8	unsigned integer
}		

Page 18, Annex A

Replace the text in Annex A with the following text:

A.1 Green Metadata SEI message syntax and semantics carried in AVC NAL units

Clause A.1 describes the payload syntax and semantics if payloadType 56 appears in an AVC NAL unit with nal_unit_type set to 6.

A.1.1 Syntax

	C	Descriptor
green_metadata(payload_size)		
green_metadata_type	5555	u(8)
if (green_metadata_type == 0) {		
period_type	5	u(8)
if (period_type == 2)		
num_seconds	5	u(16)
else if (period_type == 3)		
num_pictures	5	u(16)
percent_non_zero_macroblocks	5	u(8)
percent_intra_coded_macroblocks	5	u(8)
percent_six_tap_filterings	5	u(8)
percent_alpha_point_deblocking_instances	5	u(8)
}		
else if (green_metadata_type == 1) {		
xsd_metric_type	5	u(8)
xsd_metric_value	5	u(16)
}		

A.1.2 Semantics

green_metadata_type – specifies the type of metadata that is present in the SEI message. If green_metadata_type is 0, then complexity metrics are present. Otherwise, if green_metadata_type is 1, then metadata enabling quality recovery after low-power encoding is present. Other values of green_metadata_type are reserved for future use by ISO/IEC.

A.2 Green Metadata SEI message syntax and semantics carried in HEVC NAL units

Clause A.2 describes the payload syntax and semantics if payloadType 56 appears in an HEVC NAL unit with nal_unit_type set to PREFIX_SEI_NUT.

A.2.1 Syntax

	Descriptor
green_metadata(payload_size)	
green_metadata_type	u(8)
if (green_metadata_type == 1) {	
xsd_metric_type	u(8)
xsd_metric_value	u(16)
}	